REMARKS

I. INTRODUCTION

Claims 1 and 10 have been amended. Support for the amendments can be found at least at ¶ [0028] of the published specification. Thus, claims 1-10 remain pending in the present application. No new matter has been added. In light of the above amendments and the following remarks, Applicants respectfully submit that all presently pending claims are in condition for allowance.

II. THE 35 U.S.C. § 101 REJECTIONS SHOULD BE WITHDRAWN

Claims 1-7 stand rejected under 35 U.S.C. §101 for failing to fall within one of the four statutory categories of invention. Specifically, the Examiner asserts that a method/process claim must be tied to another statutory class of invention or transform underlying subject matter to a different state or thing. (See 4/2/09 Office Action, p.4). Claim 1 is currently amended to include "a computer." Thus, claim 1 is tied to another statutory class, namely, a computer. Accordingly, the withdrawal of the §101 rejection of claims 1-7 is respectfully requested.

Claims 8-10 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Specifically, the Examiner points to page 10 lines 15-24 of the specification and states that the claimed audio encoder may be implemented in software. (See 4/2/09 Office Action, p. 4). Applicants direct the Examiner's attention to ¶ [0028] of the published specification, which states, "[t]he invention can be implemented by means of hardware comprising several distinct elements, and by means of a suitably programmed computer. In a device claim enumerating several means, several of these means can be embodied by one and the same item of hardware." Thus, it is respectfully submitted that both, claims 8 and 10, are also tied to another statutory class. Accordingly, the withdrawal of the §101 rejection of claims 8-10 is respectfully requested.

III.   THE 35 U.S.C. § 102(b) REJECTION SHOULD BE WITHDRAWN

Claims 1-5, 8, and 10 stand rejected under 35 U.S.C. §102(b) for being anticipated by Tsutsui et al. (U.S. Patent No. 5,717,821) (hereinafter "Tsutsui2").

Claim 1 recites, "[a] method of encoding an audio signal by representing at least part of said audio signal by a plurality of sinusoids, the method comprising the steps of: performing, by a computer, an analysis on a first segment of said audio signal; selecting, by the computer, candidate sinusoids based on said analysis; defining, by the computer, for at least one of the candidate sinusoids a local frequency band around a frequency of said at least one candidate sinusoid; *combining, by the computer, amplitudes of frequency components within said local frequency band from which at least one of the candidate sinusoids within said local frequency band is excluded*; and selecting, by the computer, said candidate sinusoid as a selected sinusoid in dependence on the combination of amplitudes." The Examiner asserts that the above recitation of claim 1 is taught in Tsutsui2. (See 4/2/09 Office Action, p. 2).

> Specifically, the Examiner asserts,
>
> "it is noted that Tsutsui2 says that the *neighboring* spectrum is summed, which is the spectrum adjoining the maximum value of the spectrum which represents the candidate sinusoid. The language used here does not suggest to one of ordinary skill in the art to include the candidate sinusoid band, only the spectrum around it. This becomes defined as Variable X." (See Id.).

Applicants respectfully submit that this was never a point of contention. However, as disclosed by Tsutsui2, and conceded by the Examiner (See Id.), in "step S7, energy value within a predetermined band including the maximum absolute value spectrum and the neighboring spectrums thereof is substituted for variable Y." (See Tsutsui2, col. 13, ll. 7-10). So, Tsutsui2 looks at neighboring spectrums and sums the energies of the spectrum components of the neighboring spectrum in both directions (Variable X). Tsutsui2 then sums the energy in the selected band (Variable Y). The ratio of the two values is then used to determine which step to proceed to. (See Id., col. 13, ll. 11-17). Tsutsui2 does not exclude any of the energies of the spectrum components; **all of the energies are**

added and used in the ratio (X/Y). The Examiner incorrectly refers to only part of the ratio (Variable X) to meet the above recitation of claim 1. However, Tsutsui2 utilizes the entire ratio X/Y in step S8, which means both variables X and Y are utilized. Accordingly, it is respectfully submitted that Tsutsui2 fails to disclose or suggest *"combining, by the computer, amplitudes of frequency components within said local frequency band from which at least one of the candidate sinusoids within said local frequency band is excluded,"* as recited in claim 1. Thus, it is respectfully submitted that claim 1 and its dependent claims 2-5 are allowable over Tsutsui2.

Claim 8 recites "[a]n audio encoder for encoding an audio signal by representing at least part of said audio signal by a plurality of sinusoids, the audio encoder comprising: means for performing an analysis on a first segment of said audio signal; means for selecting candidate sinusoids based on said analysis; means for defining for at least one of the candidate sinusoids a local frequency band around a frequency of said at least one candidate sinusoid; *means for combining amplitudes of frequency components within said local frequency band from which at least one of the candidate sinusoids within said local frequency band is excluded*; and means for selecting said candidate sinusoid as a selected sinusoid in dependence on the combination of amplitudes." Thus, Applicants respectfully submit that claim 8 is also allowable over Tsutsui2 for at least the foregoing reasons presented with regards to claim 1.

Claim 10 recites limitations substantially similar to those of claim 8. Thus it is respectfully submitted that claim 10 is also allowable for at least the same reasons as claim 8.

IV.   THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN

Claims 6, 7 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsutsui2 in view of U.S. Patent No. 5,054,072 to McAulay et al.

Applicants respectfully submit that McAulay does not cure the above-described deficiencies of the Tsutsui2 with respect to claims 1 and 8. Because claims 6 and 7

depend on and, therefore, include all the limitations of claim 1, it is respectfully submitted that these claims are also allowable for at least the same reasons given above with respect to claim 1. Because claim 9 depends on and, therefore, includes all the limitations of claim 8, it is respectfully submitted that this claim is also allowable for at least the same reasons given above with respect to claim 8.
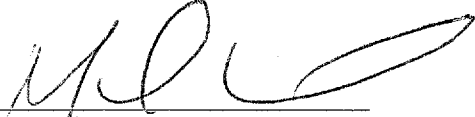
CONCLUSION

In view of the above remarks, it is respectfully submitted that all the presently pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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